**ABSTRACT**

Disclosed are microfluidic chips that include a plurality of vias; a functionalized porous polymer monolith capable of being in fluid communication with a via; a microarray capable of being in fluid communication with the functionalized porous polymer monolith; and an observation port through which at least one target disposed within the microarray is capable of being detected. The disclosed microfluidic chips contain microarrays that can be effectively coupled to functionalized porous polymer monoliths for capturing and concentrating sample nucleic acids. Also disclosed are microfluidic chips containing microarray probes having observation ports that enable the preparation of microarrays and the detection of targets. These microfluidic chips are capable of capturing and concentrating genetic material for the analysis and identification of biological organisms, such as so-called "threat genes" from chimeric bioweapons.